

What is claimed is:

1 1. A method comprising:

2 monitoring a bit in a coprocessor included in a  
3 packet engine that represents an operation associated  
4 with a packet processor that includes the packet engine;  
5 and

6 providing the packet engine the status of the bit.

1 2. The method of claim 1 wherein monitoring the bit includes  
2 maintaining an indicator representing the status of the bit.

1 3. The method of claim 1 wherein monitoring the bit includes  
2 maintaining an index identifying the bit.

1 4. The method of claim 1 wherein monitoring the bit includes  
2 maintaining an indicator representing completion of monitoring  
3 of the bit.

1 5. The method of claim 1 wherein monitoring the bit includes  
2 applying a logical mask to the bit.

1 6. The method of claim 1 wherein the bit represents servicing  
2 status of a digital subscriber line.

1 7. The method of claim 1 wherein the bit is a portion of a  
2 word.

1 8. A computer program product, tangibly embodied in an  
2 information carrier, the computer program product being  
3 operable to cause a machine to:

4 monitor a bit in a coprocessor included in a packet  
5 engine that represents an operation associated with a  
6 packet processor that includes the packet engine; and  
7 provide the packet engine the status of the bit.

1 9. The computer program product of claim 8 wherein monitoring  
2 the bit includes maintaining an indicator representing the  
3 status of the bit.

1 10. The computer program product of claim 8 wherein  
2 monitoring the bit includes maintaining an index identifying  
3 the bit.

1 11. The computer program product of claim 8 monitoring the  
2 bit includes maintaining an indicator representing completion  
3 of monitoring of the bit.

1 12. The computer program product of claim 8 wherein  
2 monitoring the bit includes applying a logical mask to the  
3 bit.

1 13. The computer program product of claim 8 wherein the bit  
2 represents servicing status of a digital subscriber line.

1 14. The computer program product of claim 8 wherein the bit  
2 is a portion of a word.

1 15. A line monitor comprises:

2 a process to monitor a bit in a coprocessor included  
3 in a packet engine that represents an operation  
4 associated with a packet processor that includes the  
5 packet engine; and

6 a process to provide the packet engine the status of  
7 the bit.

1 16. The line monitor of claim 15 wherein monitoring the bit  
2 includes maintaining an indicator representing the status of  
3 the bit.

1 17. The line monitor of claim 15 wherein monitoring the bit  
2 includes maintaining an index identifying the bit.

1 18. The line monitor of claim 15 wherein monitoring the bit  
2 includes maintaining an indicator representing completion of  
3 monitoring of the bit.

1 19. The line monitor of claim 15 wherein monitoring the bit  
2 includes applying a logical mask to the bit.

1 20. The line monitor of claim 15 wherein the bit represents  
2 servicing status of a digital subscriber line.

1 21. The line monitor of claim 15 wherein the bit is a portion  
2 of a word.

1 22. A system comprising:

2 a coprocessor included in a packet engine that is  
3 capable of,

4 monitoring a bit representing an operation  
5 associated with a packet processor that includes the  
6 packet engine; and

7 providing the packet engine the status of the  
8 bit.

1 23. The system of claim 22 wherein monitoring the bit  
2 includes maintaining an indicator representing the status of  
3 the bit.

1 24. The system of claim 22 wherein monitoring the bit  
2 includes maintaining an index identifying the bit.

1 25. A packet forwarding device comprising:

2 an input port for receiving packets;

3 an output for delivering the received packets; and

4 a coprocessor included in a packet engine that is  
5 capable of,

6 monitoring a bit representing an operation  
7 associated with a packet processor that includes the  
8 packet engine, and  
9 providing the packet engine the status of the  
10 bit.

1 26. The packet forwarding device of claim 25 wherein  
2 monitoring the bit includes maintaining an indicator  
3 representing the status of the bit.

1 27. The packet forwarding device of claim 25 wherein  
2 monitoring the bit includes maintaining an index identifying  
3 the bit.

1 28. A method comprising:

2 monitoring a bit in a monitoring coprocessor  
3 included in a network processing engine that represents  
4 the servicing availability of a digital subscriber line  
5 associated with a network processor that includes the  
6 network processing engine; and  
7 providing the network processing engine data  
8 representing the servicing availability of the digital  
9 subscriber line.

- 1     29. The method of claim 28 wherein monitoring the bit  
2     includes maintaining an indicator representing that the  
3     digital subscriber line is ready for servicing.
- 1     30. The method of claim 28 monitoring the bit includes  
2     maintaining an index variable that stores an integer  
3     identifying the digital subscriber line ready for servicing.